UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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P.O. Box 25287
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Subj: **Final South Florida and Caribbean Parks Exotic Plant Management Plan and Environmental Impact Statement (EPMP/EIS)**
CEQ No. 20100354

Dear Ms. Hamilton:

Pursuant to Section 102(2) (C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the referenced National Park Service (NPS) EPMP/EIS. The document provides management plans for exotic plant control in nine South Florida and Caribbean parks including Big Cypress National Preserve, Biscayne National Park, Canaveral National Seashore, Dry Tortugas National Park, Everglades National Park, Buck Island Reef National Monument, Christiansted National Historic Site, Salt River Bay National Historic Park and Ecological Preserve, and Virgin Islands National Park.

The climate of South Florida and the Caribbean region make these areas susceptible to exotic plant infestations that threaten biological and cultural resources in national, state, and local parks and private lands. Aggressive exotic plant species, such as melaleuca and Australian pine, have over the years invaded park lands and crowded out thousands of acres of native plants replacing them with monoculture infestations of little to no value as habitat. Effective invasive plant controls are essential to prevent further degradation of park habitat resources.

The EPMP/EIS explored a range of options to stem encroachment by exotic invasive plant species. Alternative A (No Action) is continuation of current management plans that include case-by-case strategies for each park, usually employing a combination

of herbicides, mechanical removal, re-treatment, with application decisions based upon need and available resources. Alternative B proposed higher levels of planning and monitoring that would focus treatment at critical times in the exotic species life cycle, and using GIS-based decision tools for prioritization and decision-making. Re-treatment of sites under this alternative would be more robust, and increase the rate of reduction of exotic plants. Alternative B relies upon passive restoration with native plants of treated acres (the passive restoration process is very slow, requiring from10 to15 years for some native species to reestablish themselves). Alternative C (the preferred alternative) comprises elements found in Alternative B and includes active planting/seeding of native plants to sites following invasive plant species removal.

NPS proposes controlling invasive species using a variety of methods through the use of herbicides; mechanical controls; physical control, such as fire; biological controls by the intentional introduction melaleuca-damaging beetles; and public awareness. Herbicides, however, are generally are non-selective in inhibiting plant growth. Control methods most appropriate for widely differing park habitats need to be determined by NPS scientific staff, who must balance the protection of native plants/wildlife with exotic plant control objectives.

There is discomfort among some members of the public who harbor concerns over herbicides having unforeseen consequences adversely impacting park ecosystems and ultimately human health. These concerns include herbicide movement in soils, persistence in ground/surface waters, long-term ecological effects on non-target species such as fish, birds, mammals, and target plant species becoming resistant to herbicides. EPA nonetheless supports the use of registered herbicides if they are properly applied by licensed applicators, because there do not appear to be any cost-effective alternatives for controlling the spread of invasive exotic plant infestations. Infested sites are often situated in remote areas making mechanical removal impractical because of access difficulties.

To be used legally in the U. S., herbicides must be registered by EPA. This registration process requires rigorous scientific, legal, and administrative procedures through which EPA examines the ingredients of the herbicide; the particular site or crops on which it is to be used; the amount, frequency, and timing of its use; and storage/disposal practices. The Florida Department of Agriculture likewise has an herbicide/pesticide approval process. Testing and risk assessments are conducted to evaluate whether a pesticide would pose an unreasonable risk to humans, wildlife, fish, and plants, including endangered species and non-target organisms, as well as possible contamination of surface water or ground water from leaching, runoff, and spray drift. When used in accordance with the EPA approved labeling, an herbicide should not pose an unreasonable risk to human health or the environment.

Mechanical removal as a primary means of control is limited because of expense and difficulty of ingress/egress to infested sites, the inevitable persistence of root systems remaining in situ to generate re-growth, and the collection/disposal of unwanted plant material that must be hauled to disposal areas. Biological controls are showing promise,

such as the melaleuca snout beetle and the melaleuca psyllid, two insects that have demonstrated significant impact of melaleuca on affecting flower formation and limiting seed production.

It is probable that no single control method will control exotic invasive species. Re-treatment is critical in catching the most vulnerable point in the plant's life cycle, i.e., the reproductive and younger stages. The level of effort and intensity needed to control exotic plants will decline over time, as the level of infestation decreases. Ad hoc treatments on an infrequent or irregular basis are not an effective means of control because undesirable plants can recover thru re-seeding or other means of propagation. Proper timing of treatments greatly reduces labor costs and spray product use. Keeping abreast of treatment frequencies, vulnerabilities of pest species, protection for threatened and endangered species residing at hundreds of differing locales, clearly require sophisticated management tools. Integrated management techniques including herbicides, mechanical removal, fire, biological controls, need to be coordinated through the use of GIS-based management tools to ensure that invasive species control is achievable for the long term.

EPA recommends an integrated pest management approach and using products with a low toxicity profile in sensitive ecosystems, since studies done in labs and under controlled conditions cannot always predict the effects on particularly sensitive individuals, biota or ecosystems. While EPA supports the use of herbicides if properly applied, it would be prudent to initiate testing of some indicator species to determine if accumulation of residues is occurring in park biota.

We rate this document LO (Lack of Objections). We appreciate the opportunity to review the proposed action. Please contact Ken Clark of my staff at (404) 562- 8282 if you have any questions or want to discuss our comments further.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management